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| AVAGO TECHNOLOGIES, INC. | | | VU, THONG H | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,656

Applicant(s)

FOUQUET ET AL.

Examiner

Thong H. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Claims 1-28 and new claims 29-37 are pending.

Response to Arguments

2. Applicant's arguments filed 11/22/05 have been fully considered but they are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3-5,26 are rejected under 35 U.S.C. 102(e) as anticipated by Kim [6,748,213 B1].

3. As per claim 1, Kim discloses a network for communicating a message [Kim, message notification, col 8 lines 1-14], the network comprising topographic network devices and communication links interconnecting the topographic network devices [Kim, the LDSPC and mobile unit, topographical map, col 3 line 1-col 4 line 28], the topographic network devices each having a physical location represented by a topographic coordinate set and having a network address that includes the topographic coordinate set [Kim, physical address information, longitude and latitude coordinates, col 3 line 1-col 4 line 28].

4. As per claim 26 contains the similar limitations set for in claim 1. Therefore claim 26 is rejected for the same rationale set forth claim 1.
5. As per claims 3,4 Kim discloses each of the topographic network devices is connected to at least one other of the topographic network devices and includes means for transmitting/receiving its topographic coordinate set to the at least one other of the topographic network devices [Kim, physical address information, longitude and latitude coordinates, col 3 line 1-col 4 line 28]..
6. As per claim 5, Kim discloses ones of the topographic network devices capable of originating the message for transmittal through the network to another of the topographic network devices as a destination network device [Kim, the LDSPC and mobile unit, topographical map, col 3 line 1-col 4 line 28] each include a topographic addressing engine that operates to include the topographic coordinate set of the destination network device in the message [Kim, calculating the coordinates of longitude and latitude coordinates, col 4 lines 6-65].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-25, 27,28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim [2002/ 0075862 A1] in view of Lopke [6,553,310 B1].

7. As per claim 6, Kim discloses the message includes the topographic coordinate set of a destination network device as a destination coordinate set, the destination network device being one of the topographic network devices [Kim, topographical map, col 3 line 1-col 4 line 28; physical address information, longitude and latitude coordinates, col 3 line 1-col 4 line 28]; and a one of the topographic network devices as an intermediate network device (i.e.: router), upon receiving the message, operates to route the message to another of the topographic network devices [Lopke, router, col 6 lines 20-36],

However Kim does not explicitly detail

“the other of the network devices being physically closer to the destination network device than the intermediate topographic network device”.

In the same endeavor, Lopke discloses a method and apparatus for topologically based retrieval of information wherein the systems, including server, PDA and router, use the location information to identify resource satisfying topographical criteria [Lopke col 2 lines 1-10] or resource closest on a data network [Lopke, closest, col 1 lines 25-35]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the shortest path as taught by Lopke into the Kim apparatus in order to utilize the routing process. Doing so would provide a shortest path to the destination device.

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8. As per claim 2, Kim-Lopke disclose a global positioning system receiver at least temporarily connected to ones of the topographic network devices to supply the topographic coordinate set thereto [Lopke, GPS, col 4 lines 47-64].

9. As per claim 7, Kim-Lopke disclose the network addresses of ones of the topographic network devices having substantially coincident physical locations each include an additional numeric data field [Lopke, numeric displays, col 8 lines 46-63].

10. As per claim 8, Kim-Lopke disclose additional network devices and additional communication links, the additional communication links connecting the additional network devices to ones of the topographic network devices, the additional network devices having conventional network addresses lacking topographic coordinate sets [Kim, new mobile user, col 2 lines 63-col 3 line 13].

11. As per claim 9, Kim-Lopke disclose the other of the topographic network devices is associated with the destination network device by being directly connected thereto as inherent feature of wireless communications.

12. As per claim 10, Kim-Lopke disclose routing the message from one of the topographic network devices located in a first one of the regions to another of the topographic network devices located in a second one of the regions via the regional

network device of the first one of the regions and the regional network device of the second one of the regions [Lopke, router, col 6 lines 20-36].

13. As per claim 11, Kim-Lopke disclose the destination network address includes a domain name; and the other of the topographic network devices is associated with the destination network device by being associated with the domain name included in the destination network address [Lopke, router, col 6 lines 20-36].

14. As per claim 12, Kim-Lopke disclose the other of the topographic network devices operates to receive the message and to provide a new destination coordinate set for the message [Kim, new mobile user, col 2 lines 63-col 3 line 13], the new destination coordinate set being the topographic coordinate set of an output one of the topographic network devices to which the destination network device is directly connected [Lopke, routing, col 2 lines 1-10].

15. As per claim 13, Kim-Lopke disclose the message includes a destination coordinate set, the destination coordinate set being the topographic coordinate set of a destination network device, the destination network device being one of the topographic network devices as inherent feature of routing [Lopke, routing, col 2 lines 1-10];

the network includes regions, each of the regions comprising at least one regional network device, the regional network device being one of the topographic network devices, the regional network devices of the regions being interconnected by

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high-capacity communication links, the high-capacity communication links being high-capacity ones of the communication links [Kim, wireless communication, col 2 lines 50-col 3 line 14];

the topographic network devices in each one of the regions each include additional topographic information indicating the topographic coordinate set of the regional network device of the one of the regions and a topographic extent of at least some of the regions [Kim, new home zone, col 2 lines 50-col 3 lines 14]; and

a one of the topographic network devices, upon receiving the message, operates in response to the destination coordinate set and the additional topographic information to route the message to the regional network device when the additional topographic information indicates that the destination network device is located in another of the regions [Lopke, router, col 6 lines 20-36].

16. As per claim 14, Kim-Lopke disclose the regional network device operates in response to the destination coordinate set and the additional topographic information stored therein to route the message to the regional network device of the region in which the destination network device is located [Lopke, router, col 6 lines 20-36].

17. As per claim 15, Kim-Lopke disclose A topographic network device for operation in a network including topographic devices in which each of the topographic network devices has a physical location represented by a topographic coordinate set, in which each of the topographic network devices additionally has a network address that

includes the topographic coordinate set, and in which a message configured for transmission through the network includes a destination coordinate set, the destination network set being the topographic coordinate set of a destination network device, the destination network device being one of the topographic network devices, the topographic network device comprising:

channels each configured for connection via a communication link to another of the topographic network devices, the channels including a first channel via which the message is received [Lopke, router, col 6 lines 20-36];

a coordinate store for storing connected device coordinate sets, the connected device coordinate sets being the topographic coordinate sets of the topographic network devices to which the channels are directly connected [Lopke, directly handled by router, col 12 lines 58-67; col 14 lines 43-63]; and

a topographic processor that operates in response to the connected device coordinate sets stored in the coordinate store and the destination coordinate set of the message to identify a second channel to which to forward the message, the second channel being another of the channels [Lopke, router, col 6 lines 20-36].

18. As per claim 16, Kim-Lopke disclose the second channel is the one of the channels connected to another of the topographic network devices that is physically closer to the destination network device than the network device [Lopke, closest, col 1 lines 25-35]

19. As per claim 17, Kim-Lopke disclose the coordinate store is configured to store, as connected device coordinate sets, topographic coordinate sets received from ones of the topographic network devices directly connected to the channels of the network device as inherent feature of wireless communications.

20. As per claim 18, Kim-Lopke disclose the coordinate store is additionally configured to store at least one of (a) device-type information [Kim, type of device, 0024]and (b) additional topographic information for the ones of the topographic network devices directly connected to the network device [Kim, wireless communication, col 2 lines 50-col 3 line 14]; and the topographic processor additionally operates in response to at least one of the device-type information and the additional topographic information to identify the second channel [Lopke, identifies the subnetwork, col 1 lines 52-col 2 line 10].

21. As per claim 19, Kim-Lopke disclose the coordinate store is additionally configured to store additional topographic information relating to the network; and the topographic processor operates in response to the additional topographic information in lieu of the destination coordinate set of the message to identify the second channel [Lopke, modem, Fig 1].

22. As per claim 20, Kim-Lopke disclose the topographic processor operates in response to the additional topographic information to identify, as the second channel, a

one of the channels connected at least indirectly (i.e.: redundancy) to one of the communication links at least one of (a) having a higher transmission capacity [Kim, wireless communication, col 2 lines 50-col 3 line 14], and (b) carrying less pre-existing network traffic [Lopke, modem, Fig 1]

23. As per claim 21, Kim-Lopke disclose the network includes regions, each of the regions comprising at least one regional network device, the regional network device being one of the topographic network devices, the regional network devices of the regions being interconnected by high-capacity communication links, the high-capacity communication links being high-capacity ones of the communication links [Kim, wireless communication, col 2 lines 50-col 3 line 14]; and the topographic processor operates in response to the additional topographic information to identify, as the second channel, a one of the channels connected to the regional network device of the region in which the topographic network device is located [Lopke, identifies the subnetwork, col 1 lines 52-col 2 line 10].

24. As per claim 22, Kim-Lopke disclose additional network devices and additional communication links, the additional communication links connecting the additional network devices to ones of the topographic network devices, the additional network devices having conventional network addresses lacking topographic coordinate sets, the additional network devices including a destination network device;

the message includes, instead of the destination coordinate set, a destination network address identifying the destination network device, the destination network address lacking a topographic coordinate set;

the topographic network device additionally comprises a topographic translator that operates on receipt of the message and in response to the destination network address to provide the topographic coordinate set of another of the topographic network devices as the destination coordinate set for the message, and the topographic processor operates in response to the destination coordinate set provided by the topographic translator [Kim, translate other form, col 7 lines 1-27].

25. As per claim 23, Kim-Lopke disclose a packet processing engine that operates to inhibit operation of the topographic translator when it detects a destination coordinate set extant in the received message [Kim, translate other form, col 7 lines 1-27].

26. As per claim 24, Kim-Lopke disclose a packet processing engine that operates to detect a destination coordinate set in the message and, when it detects the destination coordinate set, to determine whether the destination coordinate set is equal to the topographic coordinate set of the topographic network device [Lopke, equally, col 6 lines 37-57]; and

a conventional address processor that, when the packet processing engine determines that the destination coordinate set is equal to the topographic coordinate set of the topographic network device, operates in response to the destination network

address to identify the second channel [Kim, identifies the subnetwork, col1 lines 52-col 2 line 10].

27. As per claim 25, Kim-Lopke disclose a packet processing engine that operates to insert the topographic coordinate set of the topographic network device into the message as a reply-to coordinate set [Lopke, entries fro resource location; additional resource information, col 8 lines 18-30].

28. As per claims 27-29 contain the similar limitations set for in claims 9,24.
Therefore claims 27-29 are rejected for the same rationale set forth claims 9,24.

29. As per claim 30, Kim-Lopke disclose a destination network device (i.e.: PDA, mobile unit) that includes a first topographic set [Kim, topographical map, col 3 line 1-col 4 line 28; physical address information, longitude and latitude coordinates, col 3 line 1-col 4 line 28]; and a source network device (i.e.: a center, server) configured to generate a message comprising a packet having a header; the header containing the destination address of the destination network device. Kim-Lopke implicitly disclose the message between a source and destination including the address in header [Lopke, col 3 lines 1-65; Fig 1].

30. As per claims 31-37 contain the similar limitations set for in claims 6-25.
Therefore claims 31-37 are rejected for the same rationale set forth claims 6-25

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 6:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Vu
Primary Examiner
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A handwritten signature in black ink, appearing to read 'Thong Vu', with a horizontal line underneath.